



nrt

**Company Overview**

## The NRT Difference

# In-Flight



NRT units detect and eject material while it is in flight after it has left the belt. Others typically detect over the belt and then eject material some time later. This distinction makes all the difference.

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In-Flight Sorting reduces motion-related error

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Eliminates signal error from belt interference

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Full array of spectrometers allows for identification across entire belt width

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Enables use of transmissive detection

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## X-Ray Technology



NRT was the first to sort PVC from mixed plastics using X-ray technology in the early 1980s. Today, NRT continues to lead the industry in X-ray technology for a variety of applications. The NRT TruSort™ with DXRT™ technology is an advanced multiple energy X-ray sorting system designed to separate materials at high throughput rates. The potential for this technology is expansive: some uses include RDF/SRF preparation, metal sorting, glass and e-waste processing, and removing contaminants from organics and mineral streams.

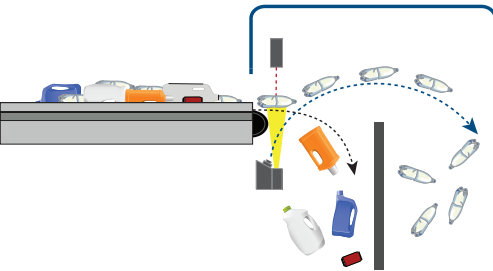


# Sorting



Technology ahead of the rest: In-Flight Sorting enables either transmissive or reflective sorting

## Transmissive Detection



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Detection signals are stronger and cleaner – Best signal-to-noise ratio

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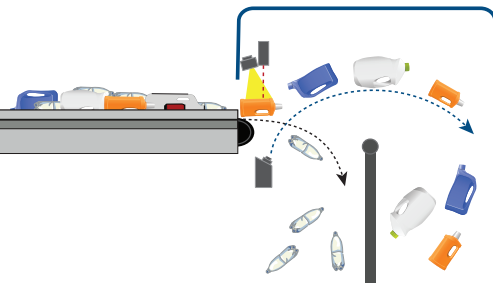
Highest accuracy for transparent material; ideal for PET stream

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Transmissive detection reads through the entire bottle wall and improves accuracy by:

- Providing a more robust polymer identification
- Eliminating interference from labels

## Reflective Detection



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Detection of opaque polymers such as HDPE and PVC

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Accurately detects and ejects In Flight

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Extremely low maintenance cost

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## Markets



### MRFs

NRT sorters are used in the largest and most advanced MRFs in the world. As a component of Bulk Handling Systems' (BHS) integrated solutions, NRT systems sort plastics, metals, wood, aseptic containers and organics at industry-leading efficiency and purity rates.



### Plastics

Types and colored polymers can easily be identified with NRT's advanced technology. Custom sorts can be configured and/or easily changed to suit the requirements of changing market conditions. NRT has proven installations that are achieving leading purity rates sorting bottles, flakes and granulates.



### RDF

NRT's technology mix efficiently removes PVC, PET, metals, glass, stones and other contaminants from a refuse derived fuel (RDF) stream, ensuring high value commodities are captured and emissions are controlled. It can also provide real-time analysis of the composition of finished RDF, providing operators with confidence in their fuel.



### Biomass & Minerals

Our patented technology is able to precisely identify contaminants in organic streams. Whether it's cleaning glass, plastic or metals from compost, or purifying a minerals stream, NRT has the solution.



### E-Waste

The shorter life cycles on all electronic equipment is creating a growing demand for the proper recycling of computers, cell phones, televisions and other electronic devices. NRT provides complete systems for processing circuit boards, precious metals, plastics, panel glass, funnel glass and other commodities in this rapidly expanding market segment.



### Diagnostics

NRT's technology can provide real-time analysis of the composition of practically any material stream, providing valuable information and feedback.





## Our Company

### People

Located in Nashville, Tennessee, NRT is a leader in designing, manufacturing and installing optical sorting technology. Since our inception in 1981, our people have been industry thought-leaders and innovators. Today, we apply our technology in automated industrial inspection systems and materials handling and process control, particularly in processing materials for recycling. Our team is focused on technology innovation, quality of manufacturing and a strong commitment to our customers.

### Technology

During the past 30 years NRT has developed dozens of technologies and advances for use in Color, Near Infrared (NIR), X-Ray and Line Camera Sorting applications and systems. Today NRT owns or is the exclusive licensee of 29 U.S. patents and five foreign patents covering these disciplines, with others pending. Utilizing top-of-the-line technology and components, our equipment features scan rates of up to 10,000 scans-per-second and boasts industry-leading capture rates.

### Quality

NRT equipment is designed, manufactured and fully supported from its headquarters in Nashville. All intellectual property is fully owned by NRT, providing the control and excellence needed for second-to-none sorting performance. Controlling all aspects of the technology components and manufacturing process, we know that our equipment will meet your performance needs now and in the future.

### Customer Service

NRT has more than 30 years of experience exceeding the support requirements of our customers. With a team of field technicians devoted to customer performance and total remote diagnostics and support via a secure internet connection, you can be certain that your NRT equipment generates the results you require.





# Equipment

Markets	SpydIR™	MultiSort® IR	Combo	ColorPlus™	TruSort DXRT	TruSort™ XRF	Metal Director™
Single Stream and MSW MRFs	●	●	●	●			
Secondary Plastics	●	●	●	●			
E-Waste	●	●	●	●	●	●	
Construction & Demolition	●	●	●		●		
RDF Preparation	●	●	●		●	●	
Organics					●	●	
Power Generation					●	●	
	NIR	VIS/RGB		X-ray		EM	

## Detection Types

NIR	Near infrared spectrometry
VIS	Visual spectrometry
RGB	Color line scan camera
X-ray	DXRT (Dual Energy X-Ray Technology) or XRF (X-Ray Fluorescent)
EM	Electromagnetic metal sensor

